



The Future of Well-being
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Artificial Intelligence and well-being

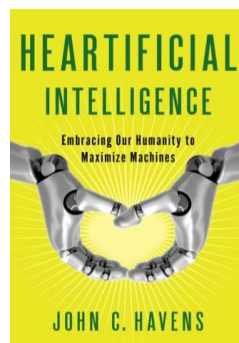
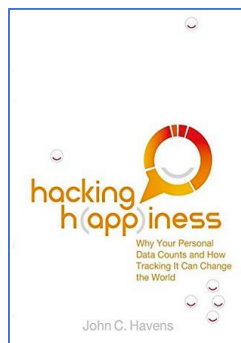
Executive Director

The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems



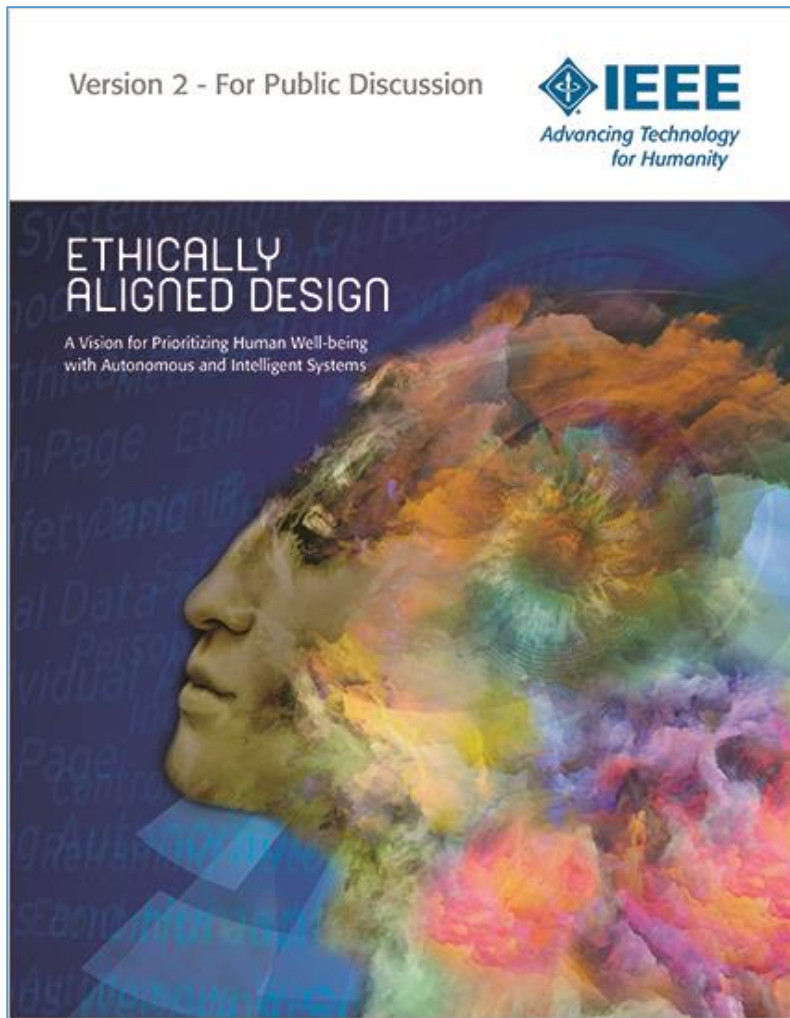
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The views expressed in this presentation are my own and don't necessarily represent positions of IEEE or CXI.



Today, A/IS creators largely measure success using metrics including profit, gross domestic product (GDP), consumption levels, and occupational safety.

While important, these metrics fail to encompass the full spectrum of well-being impacts on individuals and society, such as psychological, social, and environmental factors.

Where the priority given to these factors is not equal to that given to fiscal metrics of success, A/IS creators risk causing or contributing to negative and irreversible harms to our people and our planet.

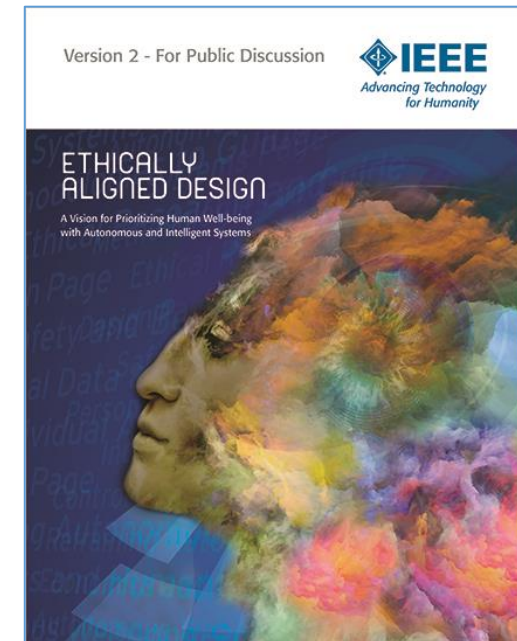
Issue:

There is ample and robust science behind well-being metrics and their use by international and national institutions. However, A/IS creators are often unaware that well-being metrics exist, or that they can be used to plan, develop, and evaluate technology.

Recommendation:

A/IS creators should prioritize learning about well-being concepts, scientific learnings, research findings, and metrics as potential determinants for how they create, deploy, market, and monitor their technologies, and ensuring their stakeholders learn the same.

Ethically Aligned Design



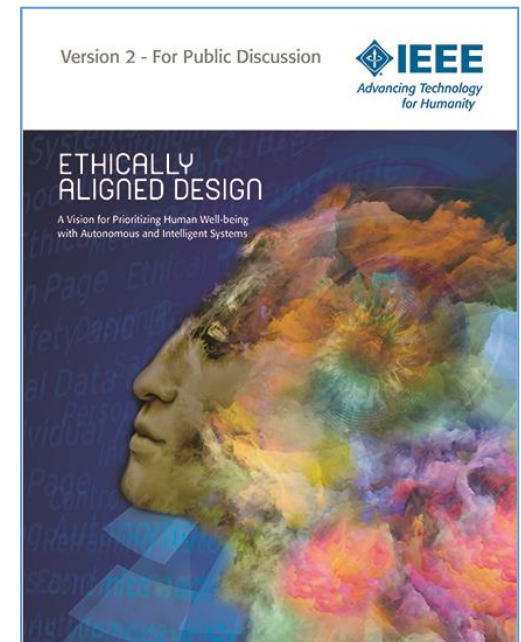
Issue:

How can A/IS creators incorporate well-being into their work?

Recommendation:

A/IS creators should adjust their existing development, marketing, and assessment cycles to incorporate well-being concerns throughout. This includes identification of an A/IS ombudsperson, identification of stakeholders and end users, determination of possible uses, harm and risk assessment, robust stakeholder engagement, selection of well-being indicators, development of a well-being indicator measurement plan, and ongoing improvement of A/IS products and services throughout the lifecycle.

Ethically Aligned Design



IEEE STANDARDS ASSOCIATION

P7010 - Wellbeing Metrics Standard for Ethical Artificial Intelligence and Autonomous Systems

The purpose of the 7010 standard is to enable programmers, engineers, and technologists to better consider how the products and services they create can increase human wellbeing based on a wider spectrum of measures than growth and productivity alone.

IEEE STANDARDS ASSOCIATION

P7010 - Wellbeing Metrics Standard for Ethical Artificial Intelligence and Autonomous Systems

Provides useful and clear guidance to engineers, developers, data scientists and others for measuring, monitoring and managing A/IS impacts on human well-being.

There is a need to proactively ensure that systems are designed in such a way that their outcomes are as much as possible truly beneficial for humanity, while mitigating predictable risks already at the inception and design phase, and not as an afterthought.

There is a need for the identification of metrics that capture the well-being of people, not as an “externality” of global production chains and markets or application in the development, monitoring and understanding of impacts of autonomous and intelligent systems.

The Well-being metric for P7010 is composed of indicators drawn from the following indices and indicators:

- Cantril's Self Anchoring Ladder
- European Social Survey
- Freedom House
- Gallup World Poll
- Happy Planet Index
- Human Development Index
- OECD Better Life Index
- Satisfaction with Life Scale Questionnaire Scale
- The Center for Epidemiological Studies-Depression Scale (CES-D)
- The PANAS scales
- UK ONS Measures of National Well-being
- United Nation's Sustainable Development Programme's Sustainable -
Development Indicators
- World Values Survey



Illustrations by Julia Kuo

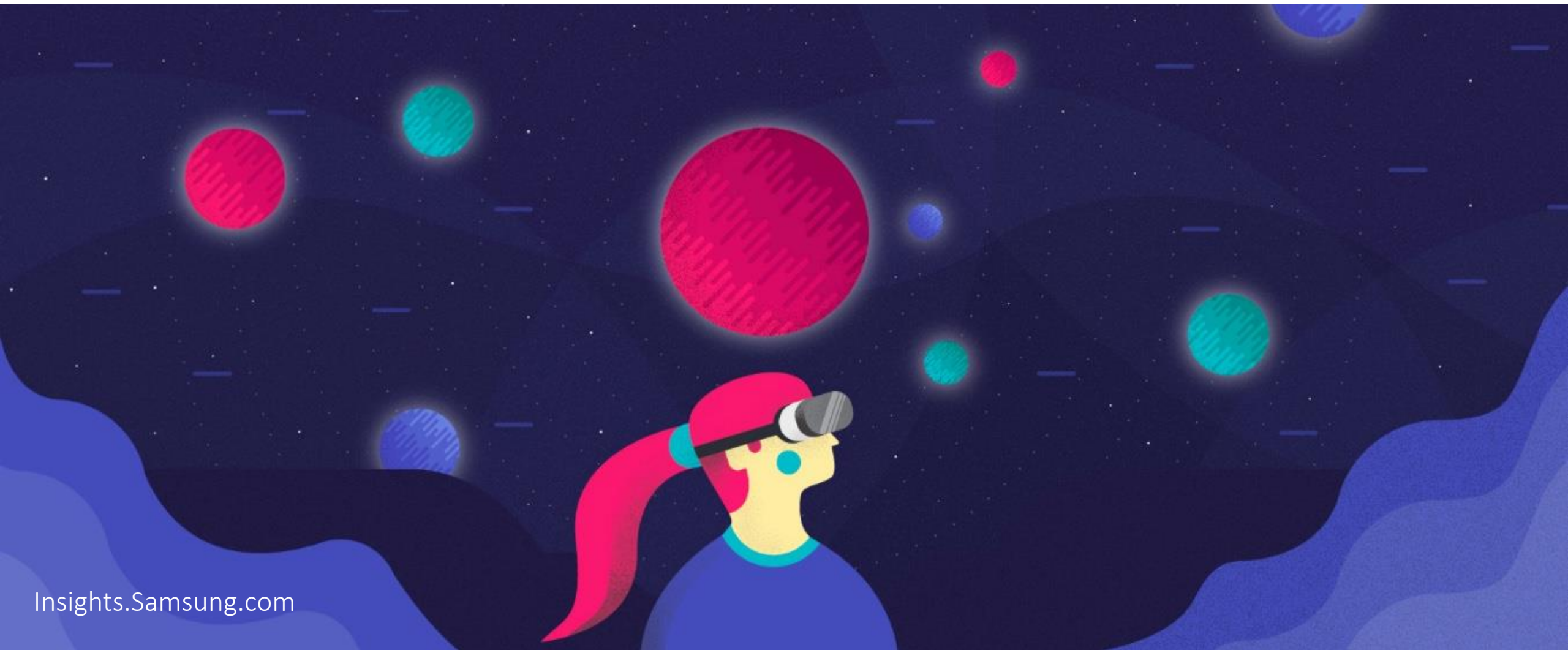


COUNCIL ON
EXTENDED INTELLIGENCE



Identifying research, methodologies, and interventions to measure and increase human agency and well-being in **Immersive Reality** environments.

Thank you.



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